



December 22, 2015

Colorado Department of Public Health and Environment  
Water Quality Control Division  
WQCD-B2-CWE  
Attn: Ms. Andrea Beebout  
4300 Cherry Creek Drive South  
Denver, Colorado 80246-1530

Re: Effluent Exceedance for Potentially Dissolved Selenium, October 2015  
100 Saint Paul, COG315289

Dear Ms. Beebout:

The 100 Saint Paul site is currently discharging groundwater to the Cherry Creek under the Remediation Activities Discharging to Surface Water, Permit Number COG315000 with Certification Number COG315289.

The monthly average concentration for potentially dissolved selenium for October 2015 was reported at 6.76 micrograms per liter ( $\mu\text{g/L}$ ), which exceeds the 30-Day Average, Discharge Limitation Maximum Concentration of 4.6  $\mu\text{g/L}$  specified on the Certification. The monthly average was based on four weekly effluent water samples reported as follows:

- Week 1: October 6, 2015 at 6.65  $\mu\text{g/L}$ ;
- Week 2: October 13, 2015 at 2.07  $\mu\text{g/L}$ ;
- Week 3: October 20, 2015 at 6.23  $\mu\text{g/L}$ ; and,
- Week 4: October 27, 2015 at 12.10  $\mu\text{g/L}$ .

The samples collected in November 2015 were reported with potentially dissolved selenium concentration that average to 3.02  $\mu\text{g/L}$ . The data indicates an increase in the concentration of total recoverable arsenic during the October 2015 sampling period concentrations, which also appears to be temporary based on the subsequent sample results. The cause of the increase of reported potentially dissolved selenium concentrations is not known. Based on the subsequent concentrations of potentially dissolved selenium in the discharge effluent, no corrective action has been deemed necessary given the nature of the exceedance. Effluent sampling will continue at the site and the concentrations of potentially dissolved selenium will continue to be reported and evaluated.

Terracon collected a 5-gallon composite sample in September 2015 (weekly aliquot of 1 gallon) to run a bench test for treatment of the effluent for potentially dissolved selenium. The bench test



**Effluent Exceedance for Potentially Dissolved Selenium**

100 Saint Paul, COG315289 ■ Denver, Colorado

December 22, 2015 ■ Terracon Project Number 25137051



results indicated the potentially dissolved selenium can be effectively removed to achieve the monthly discharge limitation using am Ion Exchange media (Evoqua ASC). If the potentially dissolved selenium concentration increased in the effluent, Terracon will assess the effectiveness of this treatment utilizing a pilot test.

If you require additional information, please contact Jonathan Anstey at (303) 454-5202.

Sincerely,

**Terracon Consultants, Inc.**

A handwritten signature in blue ink, appearing to read "J. Anstey".

Jonathan P. Anstey, P.G.  
Senior Project Geologist

A handwritten signature in blue ink, appearing to read "D. F. Schneider for".

Daniel F. Schneider, P.E., CHMM  
Principal

Copied: Ms. Jamie Kennedy (100 Saint Paul, LLC)  
Terracon Project File: 25137051